

Air Quality and Dust Monitoring Monthly Report – October 2023

London Borough of Hammersmith and Fulham



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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A report prepared by EWCs and MWCCs on behalf of HS2 Ltd.

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Monthly Summary

1.1.1 This Summary Report is published in fulfilment of commitments detailed in the High Speed Rail (London-West Midlands) Environmental Minimum Requirements, Annex 1: Code of Construction Practice, for the nominated undertaker to present the results of air quality and dust monitoring undertaken in the London Borough of Hammersmith and Fulham (LBHF) during September 2023 and October 2023 respectively.

1.1.2 Figure 1 and Figure 2 in Appendix A present the current worksites together with air quality and dust monitoring locations.

1.1.3 This summary should be read in conjunction with the overview monitoring report available from www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2, which highlights: the applicable standards and guidance, as well as the air quality and dust monitoring methodologies to be implemented by nominated undertakers throughout construction.

1.1.4 The current worksites, as presented in Appendix A, Figure 1 and Figure 2, include:

Old Oak Common Depot

- General Site - Concrete Works, Drainage and Kerb Installation.
- Station Box - Concrete, D-Wall breakdown, steel fixing and excavation.
- Station Access Retaining Wall - Piling platform construction.
- Great Western Main line – Piling operations.
- Site haul roads and public roads adjacent to site - Cleaning with a road sweeper.
- Satellite Sites / Central Line east - OOC Pile mat construction, Piling and Slit trench excavation; and
- Central Line East - Piling operations.
- Central Line West - Construction of pile Matt
- Old Oak Common East – Pile Cropping

Scheme 6

- OLE works; and
- Civil works.

1.1.5 Three (3) dust monitors are installed around these worksites, where works are underway. These sites returned a medium to high dust risk rating.

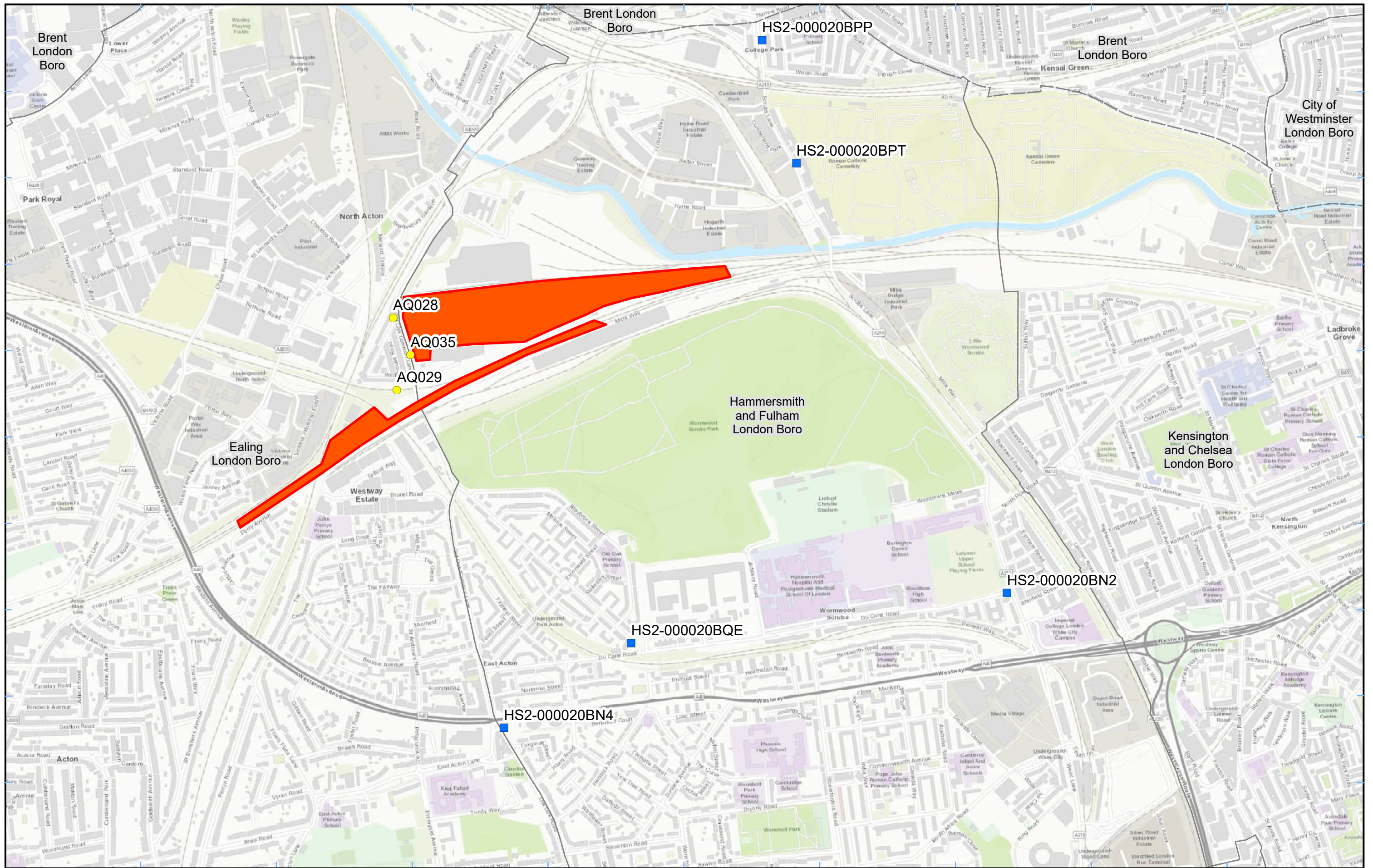
1.1.6 Dust monitoring locations and results are presented in Appendix B, Table 1, together with line charts of monthly data from each dust monitor presented in Figure 3. All continuous dust monitoring is undertaken using indicative monitors. Despite being Environment Agency (MCERTS) certified, indicative monitors carry a higher level of uncertainty than reference monitors, and therefore cannot be strictly compared with Air Quality Standards

for human health and the environment. The purpose of the monitoring undertaken is to ensure the effectiveness of the on-site mitigation.

- 1.1.7 The trigger level for PM₁₀ concentrations of 190 µg/m³, over a 1-hour period, in accordance with the updated guidance document '*Guidance on Monitoring in the Vicinity of Demolition and Construction Sites – (October 2018)*' has been applied.
- 1.1.8 Details of the trigger alert investigations and remediations are presented in Appendix B, Table 2.
- 1.1.9 Diffusion tube monitoring of Nitrogen Dioxide (NO₂) is undertaken at seven (7) locations around highways within the LBHF as part of the management of air quality where significant effects may occur as a result of the scheme.
- 1.1.10 Diffusion tube monitoring results are as provided from the laboratory analysis, and therefore still require various analysis and adjustments to be undertaken. Final corrected results will be presented and described in the annual report. However, based on the results to date, no unexpected values were recorded during the monitoring period.
- 1.1.11 NO₂ monitoring locations and results are presented in Appendix C, Table 3, together with the 2023 running mean.
- 1.1.12 There were no (0) complaints received during the reporting period (October 2023).

Appendix A – Worksites and Monitoring Locations

Figure 1 and 2: Worksites and monitoring locations within the LBHF



Legend

- Diffusion Tube
- Worksite
- Dust Monitor
- District Borough Unitary Boundaries

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Map Number

Map Name
**Worksite and Monitoring Locations
 In LBHF (Sheet 1)**

**London Borough of Hammersmith
 and Fulham**

hs2

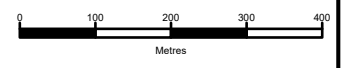
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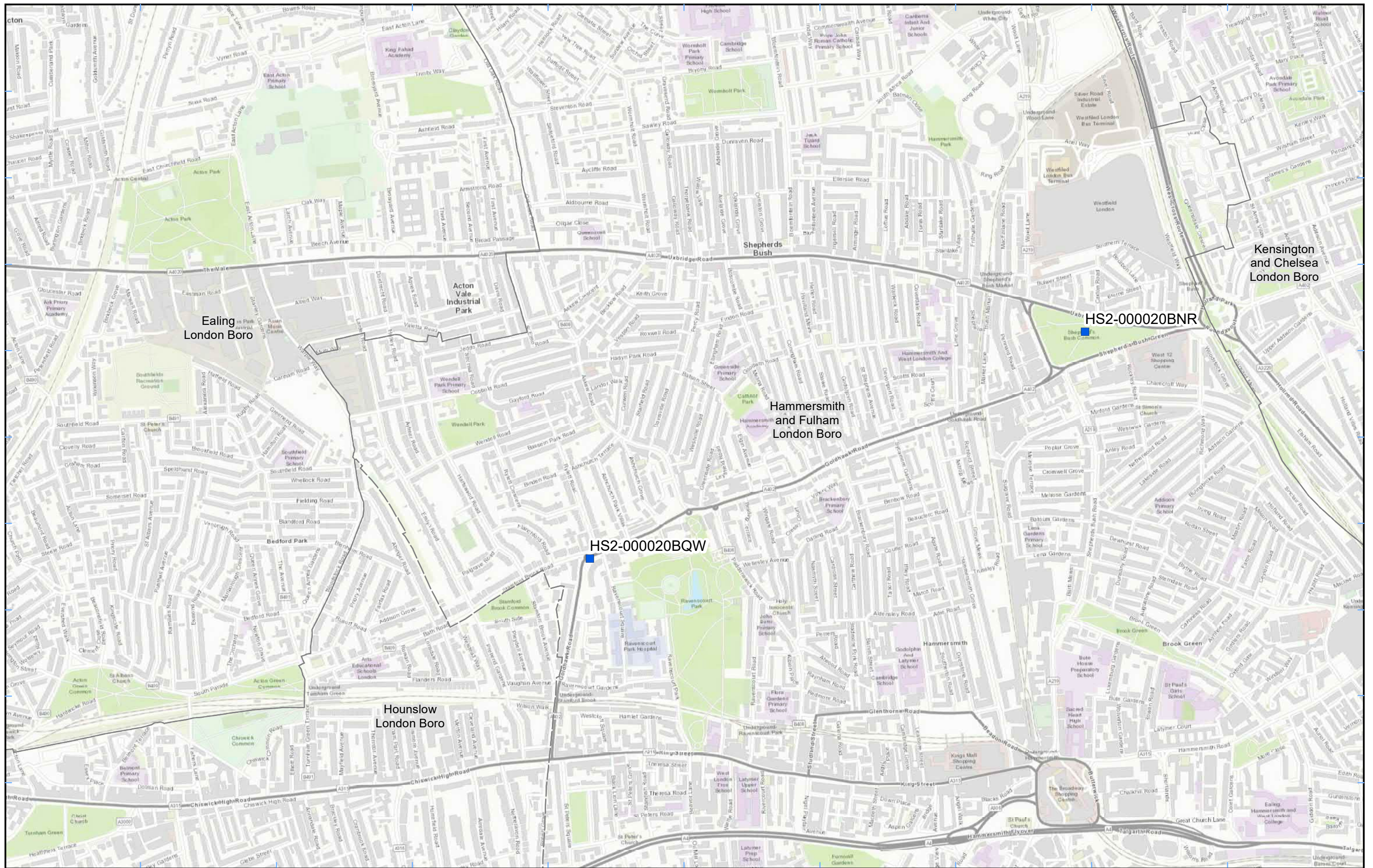
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Legend
■ Diffusion Tube
 District Borough Unitary Boundaries

Map Number
 Map Name
**Monitoring Locations In LBHF
 (Sheet 2)**
 London Borough of Hammersmith
 and Fulham

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Appendix B – Dust Monitoring Results

Table 1: Dust Monitoring Locations and Results

Monitoring site ID	Coordinates (X,Y)	Location description	Dust risk rating for site	Monitoring site active during period	Change to site since previous period report	Mean 1-hour PM ₁₀ concentration (µg/m ³)	Minimum 1-hour PM ₁₀ concentration (µg/m ³)	Maximum 1-hour PM ₁₀ concentration (µg/m ³)	Number of 1-hour periods exceeding trigger level of 190 µg/m ³	Data capture (%)
AQ028	521302, 182067	Wells House Road	M	Yes	No	15.3	2.4	66.2	0	100.0
AQ029	521302, 181857	Old Oak Common	H	Yes	No	12.4	2.7	55.9	0	100.0
AQ035	521353, 181959	Old Oak Common	H	Yes	No	16.2	2.7	246.9	1	100.0

Table 2: Summary of exceedances during period (October 2023)

Monitoring Site ID	Period of trigger alert & Concentration recorded	Investigation	Outcomes / Resolution / Remedial measures implemented
AQ035	10/10/2023 12:00 – 12:59; 246.9 µg/m ³	Works for extending the concrete footpath by the site entrance was conducted at the time of the exceedance. Upon investigation it was not dusty work as the footpath was extended using wet concrete. Instead, the exceedance was likely due to exhaust fumes from the plant adjacent to the sensor.	The M&H were advised not to use diesel plant so close to the sensors again.

Figure 3: Construction dust 1-hour mean indicative PM₁₀ concentration for all dust monitors



Appendix C – Air Quality Monitoring Results

Table 3: NO₂ monitoring locations around highways NO₂ concentrations and monthly monitoring results with running mean for 2023 (µg/m³)

Monitoring Site ID	Location description	Coordinates (X, Y)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean ¹
HS2-000020BN2	Lamp post on Du Cane Road	523092, 181264	42	45	21	37	31	34	32	34	39				35
HS2-000020BN4	End of cycle lane sign on Old Oak Road	521625, 180871	49	50	22	46	41	40	26	33	35				38
HS2-000020BNR	Lamp posts in Shepherd's Bush Common	523481, 179871	45	43	Tube Missing	37	25	Tube Missing	20	30	27				32
HS2-000020BPP	Sign post on A219 Scrubs Lane, South of Harrow Road	522378, 182877	37	46	Tube Missing	38	35	29	29	31	38				35
HS2-000020BPT	Controlled Zone/Zone Ends road sign on A219 Scrubs Lane, north of Hythe Road	522478, 182517	47	44	34	Tube Missing	33	35	24	Tube Missing	38				36
HS2-000020BQE	Lamp post next to No 11 Wulfstan Street	521996, 181118	31	33	25	20	20	20	20	24	26				24
HS2-000020BQW	Lamp post on A402 Goldhawk Road	522037, 179209	45	41	Tube Missing	Tube Missing	31	34	21	24	33				33

¹ Note: to aid interpretation and conform with best practice, the monthly measurements in this table are reported rounded to the nearest whole number. The annual mean presented here is calculated based on laboratory data to 4 significant figures, rounded to a whole number, and therefore may differ slightly to a mean derived from averaging the rounded monthly measurements in the table.